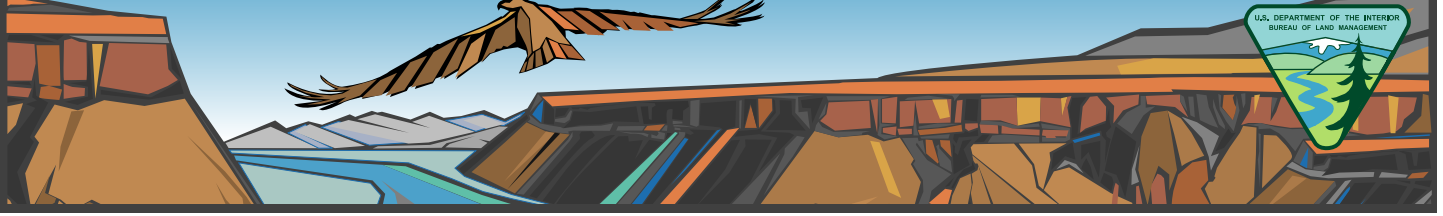


# Snake River Birds of Prey National Conservation Area



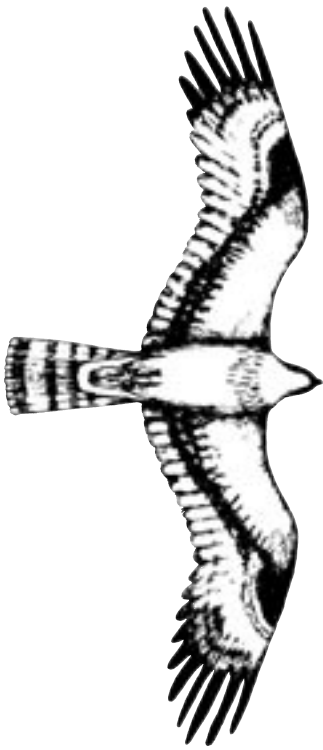
## Osprey (*Pandion haliaetus*)

### Description/Size

Wing span: 59-71 inches

Length: 21-25 inches

Weight: 2.5-4.5 pounds



Large raptor with dark chocolate brown back and wings, mostly white breast (some speckling) and belly, white crown and forehead, and dark brown stripe through eye extending down to the shoulder. Underwings have white coverts, and dark wrist patch and secondaries.

In flight, long narrow wings are bent at the wrists giving them a swept back look similar to a gull. Bill is dull blackish with a bluish gray cere. Iris yellow. Legs and feet pale bluish gray; talons black, long and strongly curved. Sexes often difficult to distinguish in the field. Adult female larger than male. Females tend to have fuller, darker breastbands and darker heads than males. Immature similar to adult, but iris orange-red through first year. Juveniles obtain adult plumage after about 18 months. No color morphs. Four subspecies recognized. *P. h. carolinensis* breeds in North America. Taxonomic status of this species is not fully resolved. Some consider this species a separate family (Pandionidae) within Falconiformes; others consider it a subfamily (Pandioninae) under the Accipitridae family.

### Similar Species

Most often confused with large gulls – unbanded tails, and lack black wrist patches on underside of wings. Bald Eagle – larger, no eye line, white tail.

### Habitat/Range

One of the most widely distributed birds of prey in the world. Inhabits every continent except Antarctica and is usually found near open water with a plentiful supply of fish – lakes, rivers, marshes, seashores, etc. In North America, osprey breed from nw Alaska east to Newfoundland. In the West it ranges into California and Wyoming with scattered areas to the south. Also breeds along Atlantic and Gulf Coasts from Massachusetts south to Florida and west to central Louisiana. Elsewhere in the lower 48 states it is found only locally. Resident populations in Mexico along both coasts of Baja California, south along the west coast to Mazatlán, and east coast of Yucatán Peninsula and south into Belize. Also resident in Bahamas and Cuba. Most osprey in North America are migratory, wintering in Mexico, Central America, Caribbean and northern South America. Scattered numbers winter along Pacific Coast.



### Food/Diet

Feeds almost exclusively on live fish; a wide variety of species are taken. Because ospreys can dive only a meter or less deep, they are restricted to surface-schooling fish, or to those in shallow water. Fish captured generally weigh 5-10 ounces and measure about 10-14 inches in length. Incidental prey include amphibians, reptiles, crustaceans, small mammals and birds. Ospreys rarely scavenge dead or dying fish, and even less frequently feed on terrestrial carrion. Ospreys do not cache food. Individual will discard uneaten portion of a fish in warm weather, but carry remnants of a fish around for a considerable time in cooler weather; partially eaten fish often left at nest.

## Voice

## Behavior

Quite vocal; five types of calls given: Alarm, Guard, Solicitation (food begging), Excited, and Screaming. All calls generally associated with breeding, except Guard and Alarm. All calls short shrill whistles; commonly single loud shrill slightly slurred whistle teeeeeeaa.

Usually flies with steady, rowing flight. Wing-beat stiff, seems centered at elbows. Soars high on thermals, particularly at midday near breeding colonies, but also in migration. Long wings preclude flight in all but open areas. Rarely walks; somewhat awkward on ground. Osprey use slow flights 30-120 feet over water when hunting. Offshore, they may climb to 650 feet to locate schools and then drop down. Also hunts from perches when available. When a fish is spotted, osprey hovers prior to diving, then plummets feet-first into water at up to 45 mph. As it enters the water the wings are folded and swept back behind the tail. The feet are extended out in front of the body. An osprey can become completely submerged and still be able to fly away. The osprey will unfold its wings and make a powerful downthrust freeing it from the water. Once in the air, fish is maneuvered in feet to be aimed forward to reduce aerodynamic drag. Fish usually taken to an elevated and prominent perch, often near nest, where eaten. Fledged young rarely near parents except when receiving food, so they do not learn to hunt by watching their parents. Foraging less efficient and successful in water with thick

vegetation. Different angles of attack observed for different types of fish—long, shallow dives for fast-swimming fish near surface, steeper dives for slower fish found deeper in water. Hunts most often in mid-morning and late afternoon. All but southernmost populations are migratory. Migrates alone. In migration, readily crosses large water bodies such as Caribbean Sea and Gulf of Mexico, and desert barriers.



## Reproduction/Nesting

Clutch size: 2-4 eggs  
Eggs: Elongate to oval-elongate, white to creamy white with blotches of reddish browns; 2.4" x 1.8"  
Incubation: 35-40 days  
Fledge: 7-8 weeks  
Disperse: 8-10 weeks

Pairs appear to form at nest site. Generally monogamous; rarely polygynous. Male performs "sky dance" that may begin and end at nest site. In this dramatic display flight, male dangles legs (often clasping a fish or nesting material) and proceeds in slow, undulating flight over nest site, usually high overhead (up to 1000 feet or more) giving Screaming Calls repeatedly. Undulations are shallow (33-67 feet) with bird rising steeply at end of each and hovering. Display and calling may continue for 10+ minutes; male sometimes losing altitude all the while, descending slowly in undulating staircase fashion to nest site. Nest made of sticks and other materials on a wide variety of natural and artificial sites: trees, cliffs, power poles, buoys, and artificial nesting platforms. Will nest low or on the ground on islands free of mammalian predators. Ospreys will search out and use good nest sites up to 6-12 miles from water. Common features: proximity to shallow water (1.5-6.5 feet deep), which generally provide most accessible fish; openness, allowing easy access to nest; safety from ground predators (elevated site, island or over-water location); sufficiently wide and stable base to accommodate the large nest. Will reuse the nest year after year. Habituates quickly and easily to nearby human activity. Young usually dependent on parents until the fall migration. Juveniles

### Life Span

### Conservation Status

### Viewing in the NCA

stay on wintering ground until their second spring, and many stay on until their third spring. Those that return to breeding range in their third year may build nests but not actually reproduce. Most breed in their 4<sup>th</sup> year; mean age at first breeding 3.6 years.

Longest recorded – 26 years 2 months.

Not on the US Fish and Wildlife's Endangered or Threatened Species List. However it is protected by the Migratory Bird Treaty Act. Idaho Fish & Game lists the osprey as a protected non game species for which it is illegal to collect, harm or otherwise remove from its natural habitat. Osprey listed as endangered/threatened/species of special concern in a number of midwest and northeastern states. Also Florida, Tennessee, Utah and California. Osprey, like other birds of prey, are susceptible to biological magnification of certain pesticides such as DDT and its derivatives (DDE). Due to localized sources of contamination in Central and South America ospreys are still contaminated with DDE. Heavy metals such as mercury are also biomagnified in food chains. Some mercury is transferred to eggs, but no consensus on how this affects egg viability. Osprey are vulnerable to shooting, especially at fish farms during migration; collisions with vehicles and power lines; electrocution. Generally tolerant of land development. Probably more vulnerable to changes in water quality. Some regional population declines probably associated with loss of nest sites, related in turn to increased lumbering and agricultural activities. Habituates easily to human activity nearby. Felling of rain forests probably has affected wintering Ospreys: increasing sedimentation rates, potentially increasing turbidity and making fishing in rivers more difficult; also elevated mercury levels through increase erosion. Gold miners in tropical South America discharge mercury into rivers, where it is already found in alarming levels in fish and humans.

The osprey migrates through the NCA in March and September. Starting in 2002 a pair has been nesting and rearing young within the NCA and in 2005, another pair was seen nest building in the NCA however it is unknown if this pair laid eggs and reared young.





### Interesting Facts

Spanish name:  
Gavilán pescador

- The scientific name comes from the Greek *Pandion*, the mythical king of Athens who along with his two daughters were turned into birds and *halos* referring to the sea and *aetos* meaning eagle.
- Osprey comes from the Latin, *ossifragus* meaning bone breaker.
- Other names: sea hawk, fish hawk, fish eagle.
- Outer toe can face forward or backward.
- Toes have spiny pads for catching and holding fish.
- Water resistant feathers-tightly overlap, are compacted, and oily.
- Small intestine-relatively long and narrow to digest scales and bones.
- Tarsi-short and thick to resist impact at high speeds on water surface and fish itself.
- Can completely close its nostrils while underwater.

### Sources

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Illustrations - courtesy of Alberta Sustainable Resource Development  
 Map - The Peregrine Fund  
 Photography: BLM and Wayne E. Melquist (head)